

NCDOT
Statewide & Regional
Transportation
Operations & Management
Centers

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IM/ITS Conference

August 2006

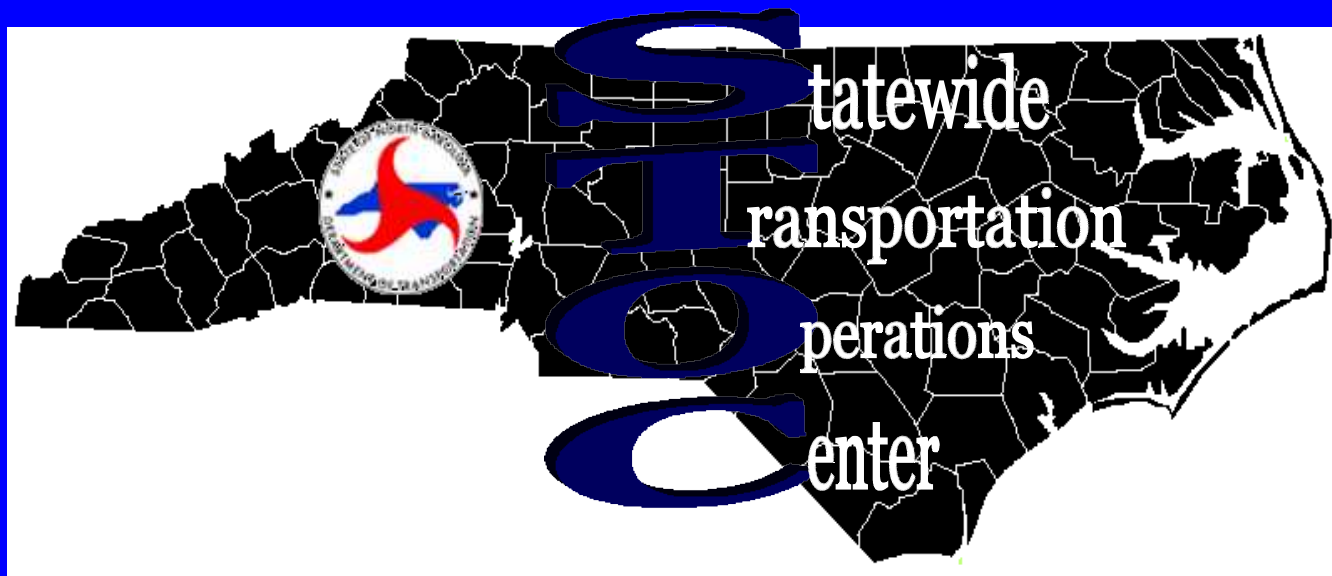
Outline

- Statewide Transportation Operations Center
 - Current Operations in Charlotte
 - Next Steps
- Regional Transportation Management Centers Recommendations
 - Functions
 - Size
 - Look

Statewide Transportation Operations Center (STOC)

- NCDOT's first attempt at 24x7x365 "Traffic Management" hub
- Opened at Charlotte TMC - Feb 2006
- Mission - To handle statewide
 - Major Incident Coordination
 - Interstate Unplanned Incidents
 - All closed > 2 hours
 - One or more lanes closed > 4 hours
 - TIMS User Assistance
 - Amber Alerts

(877) NCS-STOC



(Business cards available...
still a DOT-only number!)

STOC To Date

- Handled about 20 “major incidents”,
3 Amber Alerts, +/-15 TIMS assists
- Some Issues (CARAT)
 - Phone Problems - trying to get cordless phone
 - Notification Problems - pagers & email
 - Staffing - no permanent positions
- After conference will re-assess operations
and next steps

Ultimate STOC Functions

- Major Incidents, TIMS Assistance, Amber Alerts
- Pro-active alerting to all of NCDOT for Homeland Security and Weather Advisories
- TIMS/511 Quality Control
- DOT “Dispatch”
- Incoming incident reports from SHP, Other State DOT’s, Travelers....
- After-Hours DMS & HAR Activation, upon request

Regional Transportation Management Centers (TMC's)

- Chief Varnedoe: Need to have a standard concept for new TMC's - not start from scratch each time. (Salt shed)
- Kimley-Horne & Associates studied NCDOT and other DOT's existing TMC's then made recommendations for future NCDOT TMC's

TMC Size & Cost Calculator

- Collects Deployment Data to use in calculations
 - Number of CCTV Cameras
 - Number of DMS
 - Number of Detectors
 - Number of Route Miles managed by IMAP
 - Number of continuous miles managed through ITS devices
- Provide recommendation for Number of Operators and IMAP drivers
- Collects anticipated quantity and levels of personnel
- Line item estimates for building components
 - Control Room
 - Office Space based on outlined personnel
 - Kitchen and Break Room
 - Conference and Training Room
 - Media Facilities within the Building
 - Reception and Circulation Area
 - File Room, Storage, and Restrooms
- Calculates parking requirements based on local ordinances and building size
- Calculates the overall site size
- Provides line item costs associated with the construction of the facility
- Allows for user to select/override recommended staffing quantities

3 Sizes of TMC's

Urban Regional (3 Existing TMCs)

- Proactively manages IM and ITS programs
- Regular hours of operation are extended or 24/7 hours
- IM Program includes IMAP
- Physically connects with at least one municipality or other agency
- Coordinates with public safety agency

Small Urban Region

- Proactively manages IM and ITS programs
- Regular hours of operation based on peak time and planned incidents
- IM Program may include IMAP
- May connect with municipality or other agency

Rural Region

- Responsively manages IM and ITS programs
- Hours of operation during major incidents or planned incidents
- IM Program may include IMAP
- May connect with municipality or other agency

Proposed “Small Urban” TMC



Proposed “Small Urban”TMC

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- 7 personnel positions outlined
- 450sf Control Room
- Approximately 4,500sf facility
- Minimum Site size is 1.4 acres
- \$1,089,000 in design and construction costs with \$21,600 in annual O&M
- Timeframe for building design and construction is approximately 18 months

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Proposed “Rural” TMC



Proposed “Rural” TMC

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- 5 personnel positions outlined
- 350sf Control Room
- Approximately 3,500sf facility
- Minimum Site size 0.75 acres
- \$847,000 in design and construction costs with \$16,800 in annual O&M
- Timeframe for building design and construction is approximately 18 months

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Next Steps

- Raleigh ITS Staff to Review
- Share with Chief Engineer &
Division Engineers
- Share with Division IM/ITS Staff

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